UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/581,706 | 06/05/2006 | Kiichi Kusunoki | NNA-105-B | 4899 |

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| EXAMINER |
|---|
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| ART UNIT | PAPER NUMBER |
|---|---|
| 3663 | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| | Application No. | Applicant(s) |
| --- | --- | --- |
| **Office Action Summary** | 10/581,706 | KUSUNOKI, KIICHI |
| | Examiner | Art Unit | |
| | Matthew Lichti | 3663 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)☒ Responsive to communication(s) filed on *11 September 2009*.
2a)☒ This action is **FINAL**.  2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)☒ Claim(s) *1-3,5-9,11-15,17-23 and 25* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-3, 5-9, 11-15, 17-23, and 25* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

## Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All  b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**
1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *09/11/2009*.
4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application
6)☐ Other: _____ .

## DETAILED ACTION

### *Response to Amendments/Arguments*

1. The amendment has overcome the rejection under 35 USC 112 of the term "person of average physical size"

2. Applicant's arguments with respect to the 102 rejections have been considered but are moot in view of the new ground(s) of rejection under 35 USC 103.

3. In response to applicant's arguments that Ohki et al. do not teach interlocked and non-interlocked states based on vehicle signals, figure 1 step S1 and par. [0040] of Ohki states "it is judged whether a vehicle is parked, based on a vehicle speed signal". When the vehicle is not parked, it is in a non-interlocked state because the steering wheel, seat, and pedals do not move automatically.

### *Claim Rejections - 35 USC § 112*

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-3, 5, and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase "vehicle cannot move" is unclear because a vehicle can always be moved (by putting the car in drive, releasing the brakes, using a toe truck or car ferry, etc). The claim would be clearer it was changed to "vehicle is stopped" or "vehicle is not moving" as it is used in the

other independent claims.  Claim 5 specifies that the vehicle cannot be moved in

neutral, which is not true, especially on a hill.


### *Claim Rejections - 35 USC § 103*

6.  The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.  Claims 1-3, 5, 7-9, 11, 13-15, 17, 19, 20, 22,  23, and 25 are rejected under 35

U.S.C. 103(a) as obvious over Kanamori et al. (Japanese Patent Publication S62-

146745 using English abstract and figures) in view of Ohki et al. (U.S. PG

Publication 2002/0033297).


8.  Regarding claim 1, Kanamori discloses (English Abstract & figure 1)

    a.      A first adjustable component adjustable by the operator (seat)

    b.      An additional adjustable component having a plurality of adjustment

    directions (pedal can move in 2 directions)

    c.      a controller (microcomputer 3) configured to receive  vehicle signals (from

    remote switch 17 and ignition switch 12, receives vehicle speed) and determine

    at least an interlocked state and a non-interlocked state from the vehicle signals

    (relay 4 turned on in interlocked state when the vehicle speed is judged to be

    low);

d.      at least one movement-distance sensor (seat slide rotation sensor 15) that

senses the distance that the first adjustable component (seat) moves in plurality

of adjustment directions (can move forward or backward) when adjusted by the

operator and generates an output indicative of the distance (number of rotations

N1).

When the controller (microcomputer 3) is in the interlocked state, it

computes the distance (N2) the second device (pedal) is to move based on the

distance (N1) moved by the first component

When in the non-interlocked state, the controller is not responsive to the

output signal of the movement distance sensor (if relay switch 4 is off or ignition

12 is off, microcomputer 3 is not connected to the motors m, see figure 1)

e.      A motor (motor m of pedal device 2) that is actuated by the controller

(microcomputer 3) when in the interlocked state and is drivingly engaged to the

second adjustable component (pedal) to move in plurality of adjustment

directions (can move forward or backward) of the second component the

distance as computed by the controller.

However Kanomori only teaches one additional adjustable component (pedal),

rather than a plurality of additional adjustable components.  Ohki et al. (par. teach a

plurality of additional components (pedal and steering wheel) that are automatically

moved in a plurality of directions (at least 2) using a plurality of actuating motors based

on the movement of a first component (seat, figure 3, steps S103 and S105).  It would

have been obvious to one of ordinary skill in the art for the invention of Kanomori to also

move an additional component such as the steering wheel because the optimal position

of many components such as the steering wheel depend on the drivers physical

characteristics and would therefor also be logical to move together.

While Kanomori et al. teach interlocked states based on vehicle speed signals

(relay 4 turned on in interlocked state when the vehicle speed is judged to be low), it

does not teach a signal that the vehicle can not move (parked). Ohki et al. move

determine an interlocked state for adjusting the seat, pedal, and steering wheel based

on when the vehicle is parked and speed is 0 mph (paragraphs 39-41 and figure 1).  It

would be obvious to require the vehicle to be parked for the interlocked state because it

would be safer than an arbitrary low vehicle speed for making adjustments without

causing distractions or being unable to reach the pedal.


9.  Regarding claim 7, Kanamori discloses (English Abstract & figure 1)

  f. First adjustable component seat

  g. First motor m adapted to move the chair in response to user operated

  remote switch 18 of an operation switch 17 and user operated ignition switch 12

  h. Seat slid rotation sensor 15 operatively coupled (everything in figure 1 is

  operatively coupled) to motor m and detects number of rotations N1 in B direction

  i. Second adjustable component pedal

  j. a controller (microcomputer 3) configured to receive  vehicle signals (from

  remote switch 17 and ignition switch 12, receives vehicle speed) and determine

  at least an interlocked state and a non-interlocked state from the vehicle signals

(relay 4 turned on in interlocked state when the vehicle speed is judged to be low);

When the controller (microcomputer 3) is in the interlocked state, it computes the distance (N2) the second device (pedal) is to move based on the distance (N1) moved by the first component

k.     A second motor (motor m of pedal device 2) that is actuated by the controller (microcomputer 3) when in the interlocked state and is drivingly engaged to the second adjustable component (pedal) to move in the one or more adjustment directions (B direction) of the second component the distance as computed by the controller.

However Kanomori only teaches one additional adjustable component (pedal), rather than a plurality of additional adjustable components.  Ohki et al. (par. teach a plurality of additional components (pedal and steering wheel) that are automatically moved in a plurality of directions (at least 2) using a plurality of actuating motors based on the movement of a first component (seat, figure 3, steps S103 and S105).  It would have been obvious to one of ordinary skill in the art for the invention of Kanomori to also move an additional component such as the steering wheel because the optimal position of many components such as the steering wheel depend on the drivers physical characteristics and would therefor also be logical to move together.

While Kanomori et al. teach interlocked states based on vehicle speed signals (relay 4 turned on in interlocked state when the vehicle speed is judged to be low), it does not teach a signal that the vehicle can not move (parked). Ohki et al. move

determine an interlocked state for adjusting the seat, pedal, and steering wheel based on when the vehicle is parked and speed is 0 mph (paragraphs 39-41 and figure 1). It would be obvious to require the vehicle to be parked for the interlocked state because it would be safer than an arbitrary low vehicle speed for making adjustments without causing distractions or being unable to reach the pedal.

10. Regarding claim 13, Kanamori discloses (English Abstract & figure 1)

l.      A first adjustable component adjustable by the operator (seat)

m.      An additional adjustable component having a plurality of adjustment directions (pedal can move in 2 directions)

n.      a movement-distance sensor (seat slide rotation sensor 15) that senses the distance that the first adjustable component (seat) moves in one or more adjustment directions (B direction) when adjusted by the operator and generates an output indicative of the distance (number of rotations N1).

o.      a controller (microcomputer 3) configured to receive  vehicle signals (from remote switch 17 and ignition switch 12, receives vehicle speed) and determine at least an interlocked state and a non-interlocked state from the vehicle signals (relay 4 turned on in interlocked state when the vehicle speed is judged to be low);

When the controller (microcomputer 3) is in the interlocked state, it computes the distance (N2) the second device (pedal) is to move based on the distance (N1) moved by the first component

p.      A motor (motor m of pedal device 2) that is actuated by the controller (microcomputer 3) when in the interlocked state and is drivingly engaged to the second adjustable component (pedal) to move in the one or more adjustment directions (B direction) of the second component the distance as computed by the controller.

However Kanomori only teaches one additional adjustable component (pedal), rather than a plurality of additional adjustable components.  Ohki et al. (par. teach a plurality of additional components (pedal and steering wheel) that are automatically moved in a plurality of directions (at least 2) using a plurality of actuating motors based on the movement of a first component (seat, figure 3, steps S103 and S105).  It would have been obvious to one of ordinary skill in the art for the invention of Kanomori to also move an additional component such as the steering wheel because the optimal position of many components such as the steering wheel depend on the drivers physical characteristics and would therefor also be logical to move together.

While Kanomori et al. teach interlocked states based on vehicle speed signals (relay 4 turned on in interlocked state when the vehicle speed is judged to be low), it does not teach a signal that the vehicle can not move (parked). Ohki et al. move determine an interlocked state for adjusting the seat, pedal, and steering wheel based on when the vehicle is parked and speed is 0 mph (paragraphs 39-41 and figure 1).  It would be obvious to require the vehicle to be parked for the interlocked state because it would be safer than an arbitrary low vehicle speed for making adjustments without causing distractions or being unable to reach the pedal.

11. Regarding claim 19, Kanamori discloses (English Abstract & figure 1)

q.     A seat slide rotation sensor 15 senses the distance that the first adjustable

component (seat) moves in one or more adjustment directions (B direction) when

adjusted by the operator and generates an output indicative of the distance

(number of rotations N1).

r.     Microcomputer 3 receives vehicle signals (from remote switch 17 and

ignition switch 12, receives vehicle speed) and determines at least an interlocked

state and a non-interlocked state from the vehicle signals (relay 4 turned on in

interlocked state when the vehicle speed is judged to be low);

s.     When the controller (microcomputer 3) is in the interlocked state, it

computes the distance (N2) the second device (pedal) is to move based on the

distance (N1) moved by the first component

t.     A motor (motor m of pedal device 2) is actuated by the controller

(microcomputer 3) when in the interlocked state and is drivingly engaged to the

second adjustable component (pedal) and moves in the one or more adjustment

directions (B direction) of the second component the distance as computed by

the controller.

However Kanomori only teaches one additional adjustable component (pedal),

rather than a plurality of additional adjustable components.  Ohki et al. (par. teach a

plurality of additional components (pedal and steering wheel) that are automatically

moved in a plurality of directions (at least 2) using a plurality of actuating motors based

on the movement of a first component (seat, figure 3, steps S103 and S105). It would have been obvious to one of ordinary skill in the art for the invention of Kanomori to also move an additional component such as the steering wheel because the optimal position of many components such as the steering wheel depend on the drivers physical characteristics and would therefor also be logical to move together.

While Kanomori et al. teach interlocked states based on vehicle speed signals (relay 4 turned on in interlocked state when the vehicle speed is judged to be low), it does not teach a signal that the vehicle can not move (parked). Ohki et al. move determine an interlocked state for adjusting the seat, pedal, and steering wheel based on when the vehicle is parked and speed is 0 mph (paragraphs 39-41 and figure 1). It would be obvious to require the vehicle to be parked for the interlocked state because it would be safer than an arbitrary low vehicle speed for making adjustments without causing distractions or being unable to reach the pedal.

12. Regarding claims 2, 8, 14, 20, and 22, Kanamori discloses that the first adjustable device is a seat which moves the distance detected by seat slide rotation sensor 15, and the second device is a pedal (English abstract).

Regarding claims 3, 9, 15, and 23, Kanamori discloses (abstract) that the distance is calculated by multiplying distance N1 by a prescribed coefficient (preset ratio between the drivers arm length and leg length).

13. Regarding claims 5, 11, 17, and 25, Kanamori discloses (abstract) that the interlock state (relay 4 is turned on) occurs when a speed is judged to be low. If the speed is zero, it will be judged to be low which means the interlock state will occur.

Ohki et al. move determine an interlocked state for adjusting the seat, pedal, and steering wheel based on when the vehicle is parked and speed is 0 mph (paragraphs 39-41 and figure 1).

It would be obvious to use a speed of zero for the interlocked state because it would be the safest speed for making adjustments without causing distractions or being unable to reach the pedal.

14. Claims 6, 12, 18, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanamori et al. (Japanese Patent Publication S62-146745 using English abstract and figures) in view of Ohki et al. (U.S. PG Publication 2002/0033297) and Wang (U.S. PG Pub 2004/0109247 ).

15. Regarding claims 6, 12, 18, and 21, Kanamori discloses the invention substantially as claimed but does not particularly disclose the the first and second adjustable devices are mirrors

Wang discloses an automatic driving position adjustment system for use in a vehicle having at least first (fig. 1, left mirror 20) and second adjustable components (right mirror 22) wherein the first component is adjustable by an operator between a first and second position (par. 12), comprising:

(a) a movement-distance sensor (position sensor 48) that generates an output signal indicative of the distance that the first adjustable component (LH mirror 20) moves when adjusted by an operator between its first and second positions (par. 15);

(b) a controller (50) responsive to the output signal of the movement-distance sensor (48) and configured to compute a relative distance that the second adjustable

component (RH mirror 22) is to move on the basis of the distance moved by the first

adjustable component (par. 15); and

(c) a motor (24) that is actuated by the controller (50) and is drivingly engaged to

the second adjustable component (RH mirror 22) to move the second component the

relative distance as computed by the controller (par. 15).

Wherein the controller is configured to receive vehicle signals from the vehicle

(mirror mode selection switch 40) and wherein the controller (50) is further adapted to

actuate the motor (24) to move the second adjustable component (right hand mirror 22)

when the vehicle is in an interlocked (LH/RH mode position) state (par. 13) and wherein

the controller, when in the non-interlocked state, is not responsive to the output of the at

least one movement-distance sensor.

wherein the first adjustable component (LH mirror 20) is a first mirror surface that

moves through a range of angular positions when adjusted by an operator between the

first and second positions and the second adjustable component (RH mirror 22) is a

second mirror surface a that is adjustable through a range of angular positions (par. 17);

wherein the movement-distance sensor (48) output is indicative of the change in the

angular position of the first mirror surface (par. 18, measured LH mirror angle alpha).

It would have been obvious to one of ordinary skill in the art the time the

invention was made to apply the system of moving vehicle components based on a

distance moved by another component of Kanamori et al. to adjusting mirrors because it

would have the same result of speeding up the process of adjusting the components to

the drivers preference.

### *Conclusion*

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Matthew Lichti whose telephone number is (571) 270-

5374. The examiner can normally be reached on Monday - Friday 8:30 AM - 5:30 PM

EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jack Keith can be reached on (571)272-6878. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. L./
Examiner, Art Unit 3663

/Jack W. Keith/
Supervisory Patent Examiner, Art Unit 3663